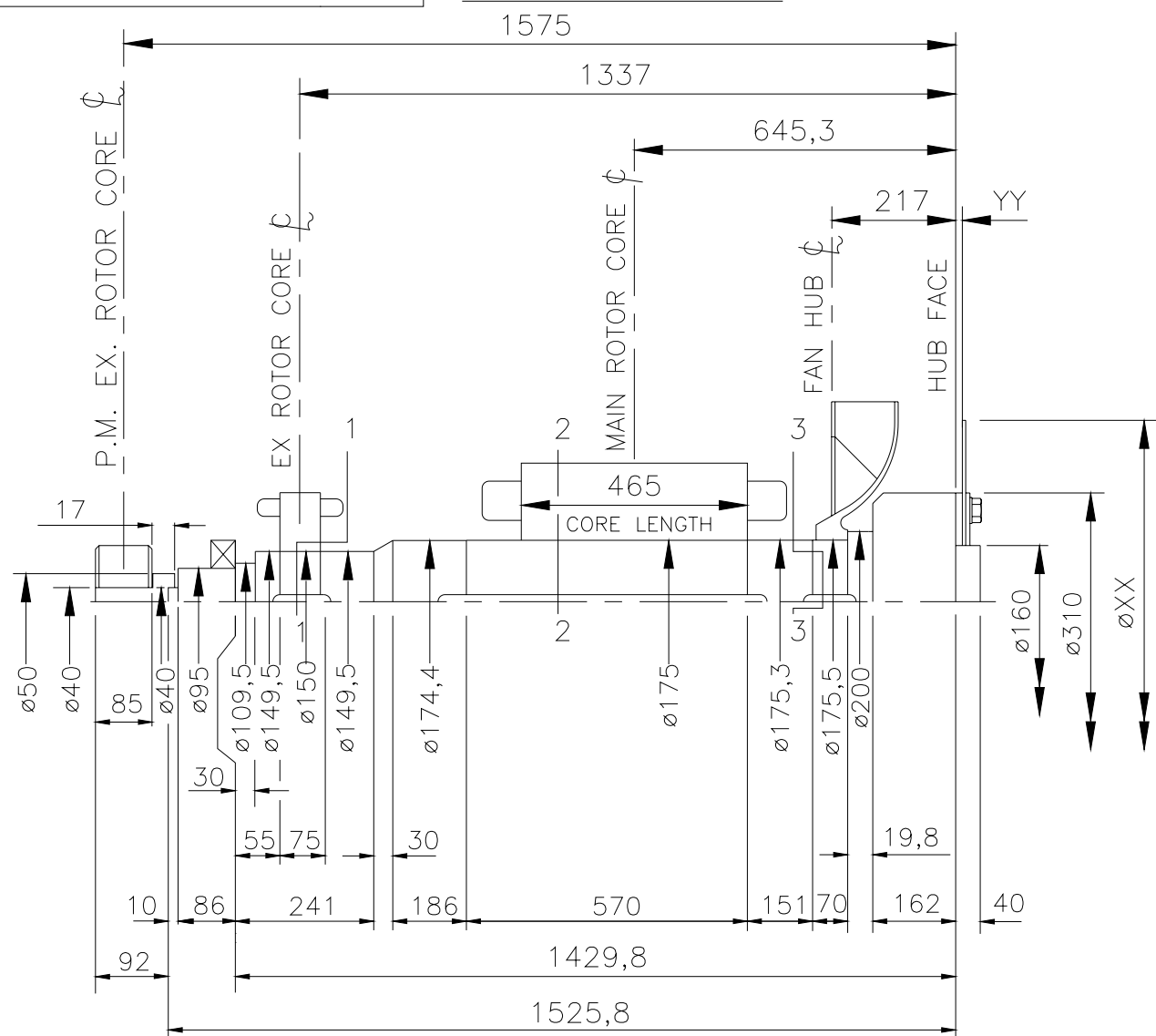


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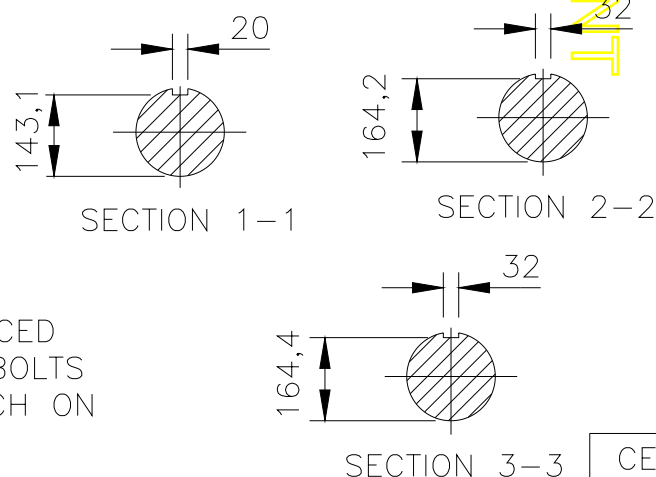
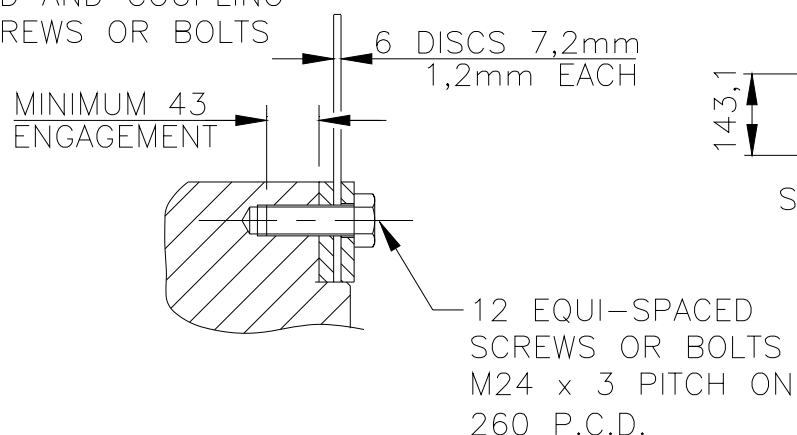
ISSUE B

IF IN DOUBT-ASK  
DO NOT SCALE

FIRST W.O.



SECTION THRO' SHAFT  
END AND COUPLING  
SCREWS OR BOLTS



APPROVED DOCUMENT

NOTES:  
SHAFT STIFFNESS:-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$   
AND THE COUPLING HUB FACE IS  $150,99 \times 10^6$  kgcm/radian  
(STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)  
  
SHAFT MATERIAL:-  
STEEL - C40E TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES  
WHEN APPROPRIATE)  
MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS  $34.47 \times 10^6$  N/m<sup>2</sup> FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND  $68.94 \times 10^6$  N/m<sup>2</sup> FOR RUN THROUGH CONDITIONS, FOR INDUSTRIAL MACHINES.  
FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL APPLY.

CUMMINS GENERATOR TECHNOLOGIES LTD SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING WITH THESE RULES. CUMMINS GENERATOR TECHNOLOGIES LTD BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD BS ISO 1940 PARTS 1 AND 2. BALANCE GRADE 2.5

FOR UNBALANCED MAGNETIC PULL (U.M.P.) REFER TO THE FACTORY.

COMPONENT	Wt kg	WR <sup>2</sup> kgm <sup>2</sup>	COUPLING SAE No	COUPLING DIMEN's		COUPLING ASSEMBLY WEIGHT kg	COUPLING STIFFNESS 6-PLATES kgcm/rad	COUPLING DISC WR <sup>2</sup> kg m <sup>2</sup>
				XX	YY			
EX.ROTOR	46,791	0,7758						
MAIN ROTOR	729,193	28,3983						
FAN	28,800	1,6520						
SHAFT	272,792	1,0198	18	572	16	24,5	$1592 \times 10^6$	0,590
HUB	53,533	0,8846	21	673	00	23,1	$1468 \times 10^6$	1,135
P.MAG.ROTOR	6,970	0,0190	24	733	00	26,84	$1428 \times 10^6$	1,598
STUB SHAFT	0,929	0,0003						
-	-	-						
TOTAL	1139,008	32,7498						

CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE BY
kg	lb	0,453592
kg m <sup>2</sup>	lb ft <sup>2</sup>	0,04214
kgcm/rad	lbin/rad	1,1521246
N/m <sup>2</sup>	lbf/in <sup>2</sup>	6894,76

MOD'N	ISSUE	DRAWN	DATE	ALTERATION
5-0448-0	B	AJB	02.02.10	CHANGES TO STEEL SPECIFICATION; STANDARDS REFERENCES. CHANGE OF COMPANY NAME.
4/7252/2	A	AMH	27.4.04	ORIGINAL ISSUE

CERTIFIED PRINT (ONLY IF SIGNED)		
BY		
DATE		
DRAWN	AMH	27.4.04
CHECK	AJB	02.02.10
APPR'D	JKB	02.02.10

P7A SINGLE BEARING  
MOMENTS OF INERTIA  
AND SHAFT DETAILS  
  
CUMMINS GENERATOR  
TECHNOLOGIES LTD.

SCALE NTS (SHEET 1:10)	FIRST W.O.	UNIT OF MEASUREMENT MILLIMETRES (mm)
L15-12973	ISSUE B	